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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,995	06/12/2000	Gerd Spalink	450117-02529	4729

20999 7590 08/12/2004  
FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER

MUNOZ, GUILLERMO

ART UNIT PAPER NUMBER

2637

DATE MAILED: 08/12/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/591,995

Applicant(s)

SPALINK, GERD

Examiner

Guillermo Muñoz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Argument***

Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

Upon further consideration Examiner withdraws notice of acceptance of the drawings for the following reason.

Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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The abstract of the disclosure is objected to because it is not limited to a single paragraph. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: The specification is objected to for including references to the claims, for example page 3, lines 24-25 reference claims 2 to 8.

The specification is objected to for not including section headings.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

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- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

### *Claim Objections*

Claims 1-9 objected to because of the following informalities: Claims 1-9 need to be rewritten in such a way as to improve the claim language. For instance, claim 5 can be improved by rewriting the same as follows:

- 5. The processing stages according to claim 1, comprising:
- a forward error correction stage (3, 6, 7) succeeding the synchronization byte detector (1), the forward error correction stage (3, 6, 7) being switched from an off mode to an on mode when the lock detected output signal indicates the lock-in of the receiver, and being in an off mode when the lock detected output signal does not indicate the lock-in of the receiver.—

Regarding claim 8, the variables "DVB" and "DAB" are critical or essential to the practice of the invention, but not defined in the claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term “and/or” in lines 6 and 7 render the claim indefinite for failing to clearly point out the structural relationship of the processing stages with the synchronization byte detector. It is suggested the term “and/or” in lines 6 and 7 be replaced with the term —and—.

Further, the phrase “which is used as” in line 6 render the claim indefinite for failing to clearly point out whether the term applies to one or both of the synchronization byte detector outputs. It is suggested the phrase “which is used as” be replaced with the phrase —, said lock detected output signal is used as—.

Regarding claim 2, the term “and/or” in line 2, see claim 1.

Regarding claim 3, the term “and/or” in lines 2, 3, and 4, see claim 1.

Claims 4-9 are dependent on rejected claim 1, and are rejected under 35 U.S.C. 112, second paragraph.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-6, and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Prasad et al..

Regarding claim 1; AAPA disclose a channel decoder having a sync-byte-detector that generates a synchronization signal when the synchronization byte (0x47) in the MPEG transport packet structure is detected, note Fig. 3 and page 2, lines 28-34 of the instant application. AAPA further disclose transmitting the Start of Frame signal to processing stages forward of the sync-byte-detection stage, elements 3, 6, 7, and 10 and processing stages prior to the sync-byte-detection stage element 9 in Fig. 3 of the instant application, however, AAPA's sync-byte-detector does not provide a lock detected output signal.

Prasad et al. teach a system for detection of a MPEG sync-byte pattern, note Col. 1, lines 31-63. Prasad et al. further teach entering a lock phase once N sync-byte patterns are detected in a row, upon entering a lock phase a data enable signal and start of packet signal are generated, note Col. 4, lines 12-48.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify AAPA sync-byte-detector with Prasad et al.'s teaching of generating a

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data enable signal since Prasad et al. suggest in Col.3 lines 35-36 that the modification would prevent utilization of data which has not been delineated into packets.

Regarding claim 5; as applied to claim 1, Prasad et al. do not explicitly teach "on mode" and "off mode", however, the functionality of the data enable signal is the same.

Regarding claim 6, see claim 5.

Regarding claim 8; AAPA further teach the claimed subject matter note page 2, lines 6-8 of the instant application.

Regarding claim 9, see claim 8.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Prasad et al. and Lin et al..

Regarding claim 2; as applied to claim 1 above, AAPA disclose sync-byte-detector provides an output to controller 9 that controls baseband conversion in Fig. 3 of the instant application, however does not teach changing clock or carrier recovery modes based on the input provided from the sync-byte-detector.

Lin et al. teach a HDTV receiver using a joint timing and carrier circuit wherein "Following configuration download the receiver 10 must acquire lock, i.e. synchronize its acquisition and tracking loop circuitry 30 to the frequency and phase of a remote transmitter. Receiver lock is a multi-step process which generally involves allowing the various acquisitions/tracking loops to acquire lock in a predetermined manner. For example, the AGC loops are generally allowed to acquire first, in order to ensure that the signal level at the input to the A/D converter 14 is set appropriately. AGC bandwidths are initially set wide



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open in order to minimize acquisition time and subsequently reduced to provide adequate tracking and minimal noise”, note Col. 7, lines 39-50.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify AAPA’s baseband conversion with Lin et al.’s teaching of changing the mode of the AGC since Lin et al. suggest in Col. 7, lines 47-50 that changing the AGC modes would minimize acquisition time.

Regarding claim 3; Lin et al. further teach the claimed subject matter in Col. 7, lines 39-50.

Regarding claim 4; Lin et al. further teach the claimed subject matter in Col. 2, lines 20-30.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA) in view of Prasad et al. and Washington et al. (cited in previous office action).

As applied to claim 1 above, Prasad et al. teach generating a data enable signal to prevent utilization of data which has not been delineated into packets, however, neither Prasad et al. do not explicitly teach an “output said lock detected output signal to other processing stages within the receiver”.

Washington et al. teach a transport stream decoder that uses synchronization byte (0x47) in the MPEG transport packet structure to determine if synchronization is achieved, note col.10, line 60-col.11, line 20.

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Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify AAPA's channel decoder with a sync-byte-detector output in view of Washington et al.'s teaching of synchronizing the transport decoder with the MPEG transport sync-byte, since Washington et al. teach the need for the transport decoder to be synchronized to the MPEG transport sync-byte, in col. 10, line 60-Col. 11, line 20.

### ***Conclusion***

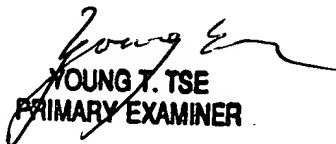
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Munoz whose telephone number is 703-305-4224. The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 703-308-7728. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GM  
August 3, 2004



YOUNG T. TSE  
PRIMARY EXAMINER